On page 7, between lines 2 and 3, please insert --DETAILED DESCRIPTION OF THE INVENTION--;

line 12, please change "socalled" to --so-called--; and

line 26, please change "introduced" to --incorporated--.

On page 10, line 1, please change "Fig. 1 shows" to --Figs. 1a and b show--.

On page 14, line 11, please change "(10)" to --(6)--; and

line 15, please change "(11)" to --(7)--.

On page 15, line 13, please change "Fig. 1" to --Figs. 1a and b--;

line 14, please change "Fig. 2." to --Figs. 2a and b.--; and

line 23, please change "(12)" to --(8)--.

On page 16, line 1, please change "Fig. 2 shows" to --Figs. 2a and b show--; and

line 22, please change "(13)" to --(9)--.

On page 17, line 9, please change "(14)" to --(10)--.

In the Claims

1. (Amended) A method [Method] for detecting [the] modes of a dynamic system with a multiplicity [large number] of modes s_i that each have a set α (t) of characteristic system parameters, in which a time series of at least one system variable x(t) is subjected to modeling so that in each time segment of a predetermined minimum length a predetermined prediction model f_i for a system mode s_i is detected for each system variable x(t), [characterized in that the modeling of the time series is followed by] comprising performing drift segmentation subsequent to said modeling in which, in each time segment in which there is transition of the system from a first system mode s_i to a second system mode s_j, a series of mixed prediction models g_i is detected and produced by linear, paired superimposition of [the] prediction models $f_{i,j}$ of the two system modes $s_{i,j}$.

In Claim 2, line 1, please change "Method" to --The method--.

3. (Amended) The method [Method] according to claim 2 in which the switch segmentation [takes the form of] is a simulation of a training time series of the system or of the time series to be investigated with several, competing prediction models.

In Claim 4, line 1, please change "Method" to --The method--.

In Claim 5, line 1, please change "Method" to --The method--.

In Claim 6, line 1, please change "Method" to --The method--.

In Claim 7, line 1, please change "Method" to --The method--.

8. (Amended) The method [Method] according to [one of the preceding claims] Claim 1 in which the series of mixed prediction models g_i is detected by determining a prediction for each time increment with each of the possible prediction models, resulting in a time-dependent prediction matrix from which a mean prediction error for randomly selected segmentations can be derived, whereby the sought series of mixed prediction models g_i is the segmentation with the smallest prediction error or the maximum probability.

In Claim 9, line 1, please change "Method" to --The method--.

10. (Amended) The method [Method] according to [one of the preceding claims] Claim 1 in which drift segmentation is followed by an additional step to reduce the number of prediction models used for modeling where the number of prediction models is reduced sequentially, associated with a determination of the mean prediction error, until a further reduction of the number of prediction models means an increase in the prediction error.

11. (Amended) The method [Method] according to [one of the preceding claims] Claim 1 in which the time series of at least one of the system variables x(t) comprises a time series of physiological parameters described by the Mackey-Glass delay differential equation $dx(t) / dt = -0.1x(t) + 0.2x(t - t_d) / 1 + x(t - t_d)^{10}$.

12. (Amended) The method [Method] according to [one of the claims] Claim 1 [through 11] in which the time series of at least one of the system variables x(t) comprises